Hampton Roads Transportation Operations Center
Oliver Rose- Facility Manager
970 Reon Drive
Virginia Beach, VA 23464

ERO Weekly Report; Week Ending May 9, 2014

Our mission is to plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life.

Motorist Quotes of the Week about ERTOC SSP

J. Sindelar

" SSP driver Josh was very informative and courteous during the response. I really appreciate that he took the time and effort to get our truck back in service so that we could get to work without being so late."

D. Graves

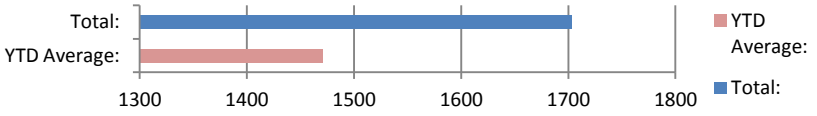
"Mr. Graves assisted us. We hit febris on the road and got no response for AAA. He was fantastic!"

S. Pearson

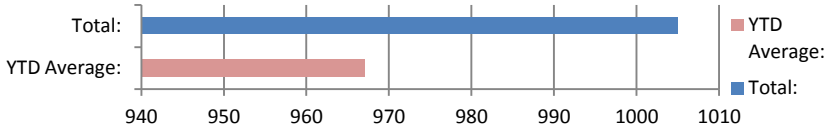
"Shannon was very comforting and courteous. She quickly put on the spare tire. Excellent service!"

Operations & Maintenance Summary

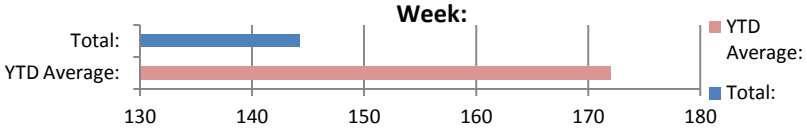
Events Logged by the Control Room Last Week:



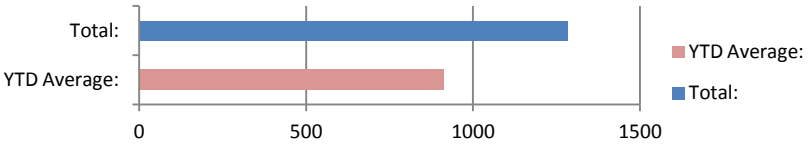
Events with Safety Service Patroller Responses Last Week:



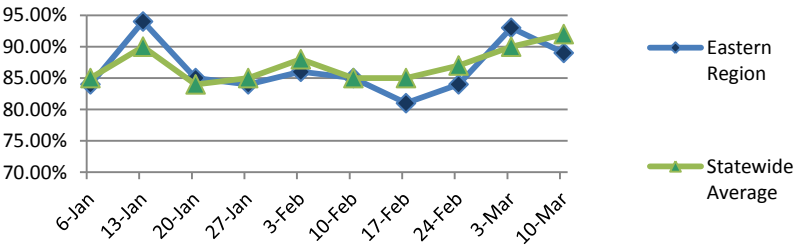
Number of Gallons Dispensed During SSP Fuel Assists Last Week:



Number of Lane Closures Entered Last Week:



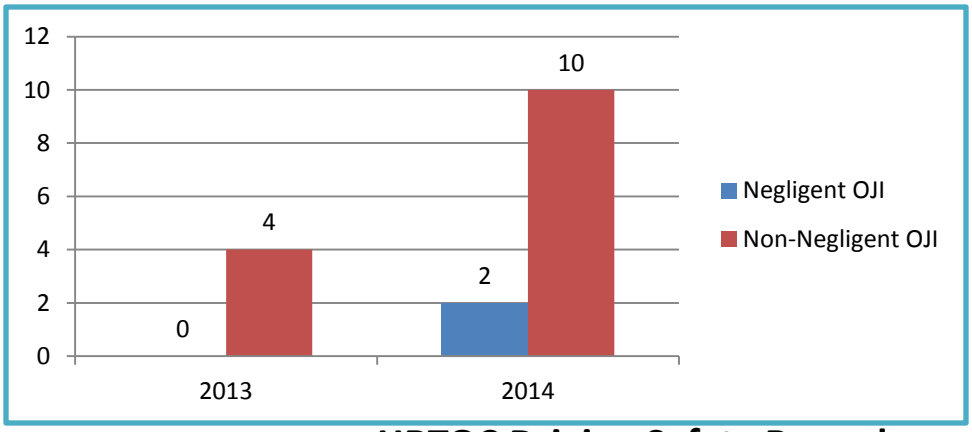
VA Traffic Performance



Data Key is located on pages 8-14

Safety Statistics

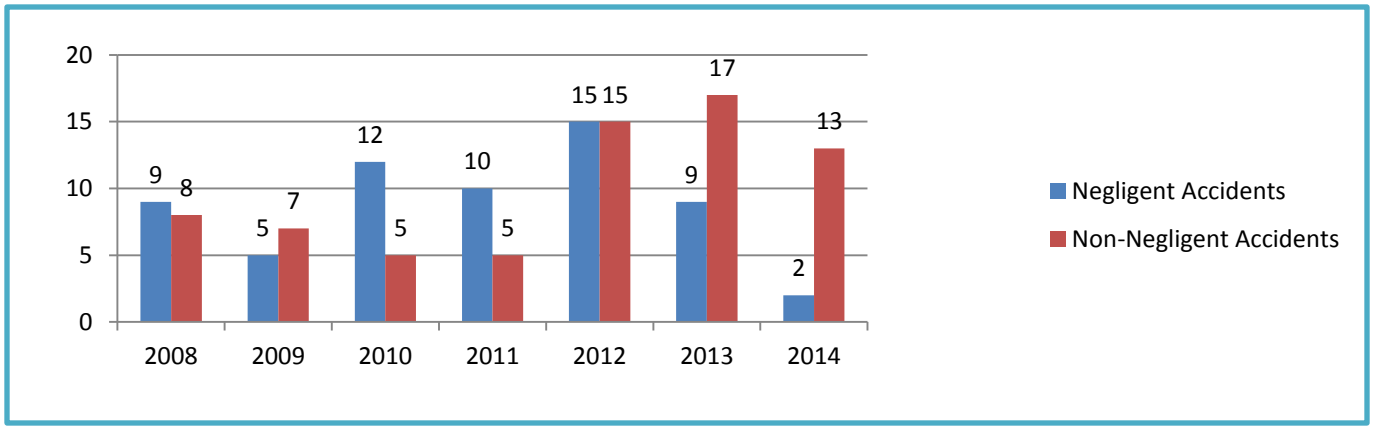
HRTOC On-the-Job Injuries (OJI)



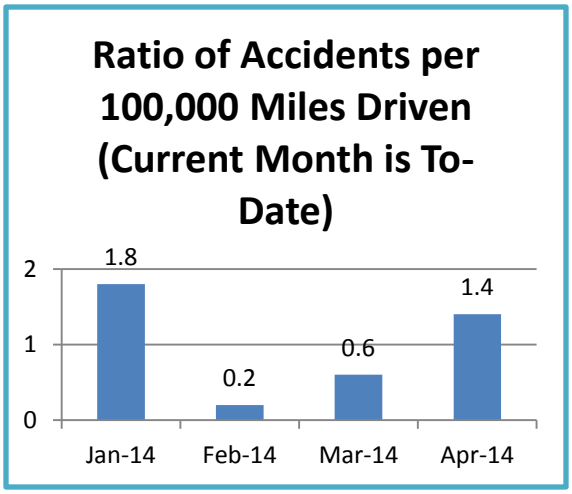
*OJIs & Accidents for the current year are accrued as negligent or non-negligent once the safety committee has made a determination based on the completed accident investigation

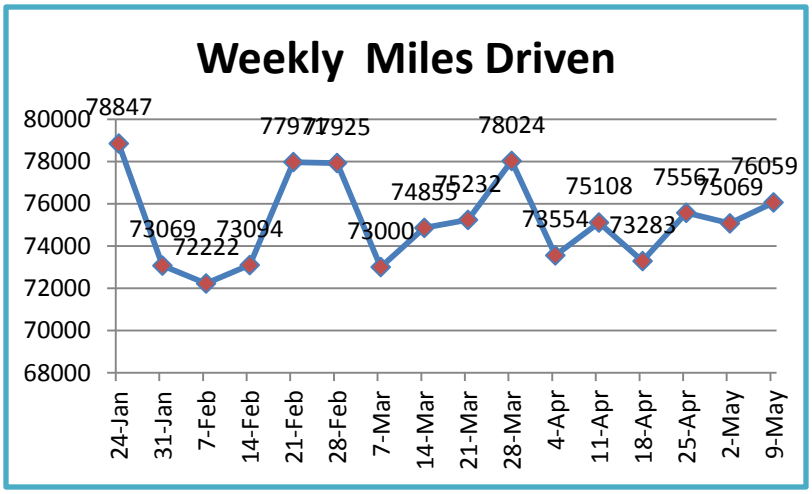
*Next safety meeting is scheduled June, 2014

HRTOC Driving Safety Record



Monthly Ratio of SSP Accidents to Miles Driven





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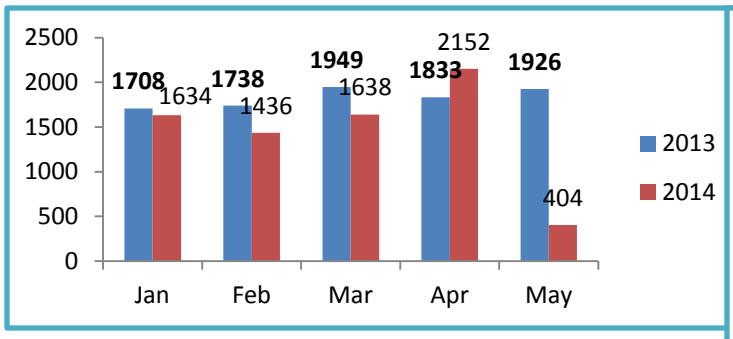
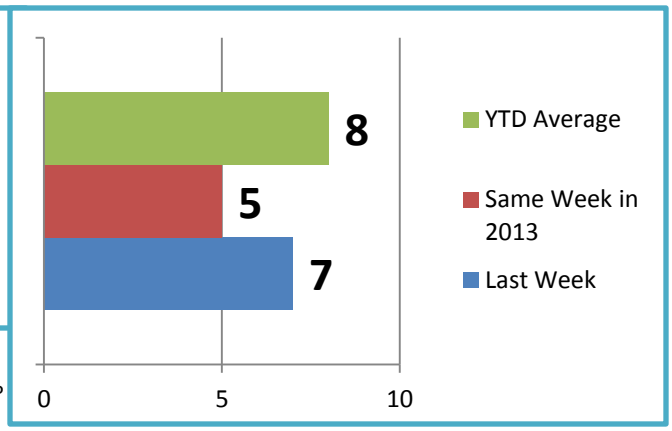
Control Room

VaTraffic Reports by Month

Current month reflects 'to-date'



Number of Incidents Involving Tractor Trailers



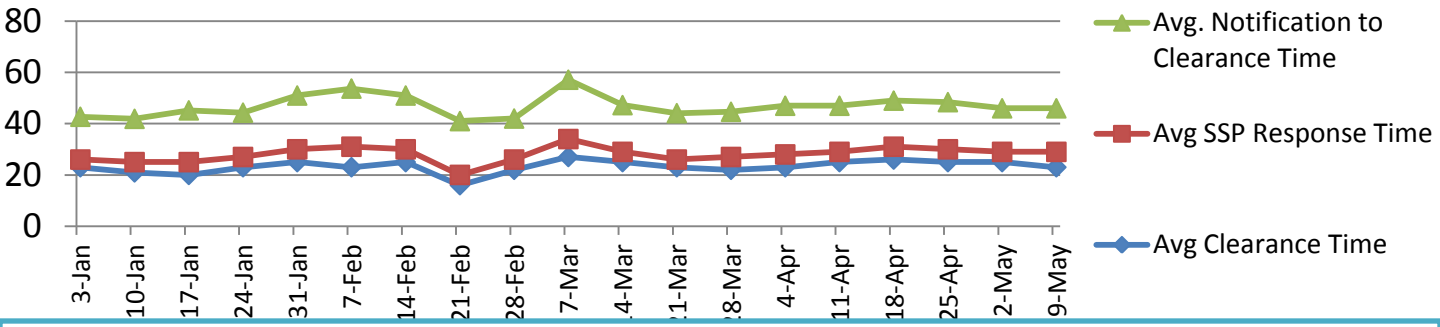
Incident Duration*

Notification < SSP Response

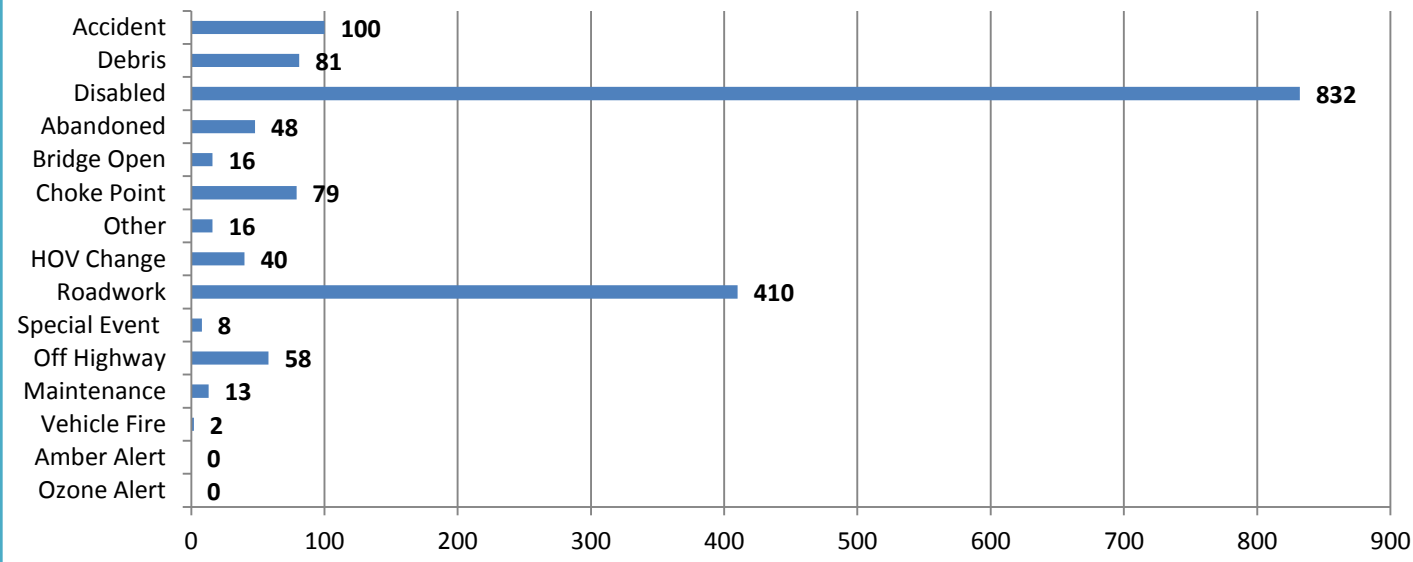
SSP Response < Incident Clear Time

Incident Clear Time < Notification *to* Clear Time

* Includes only incidents when a SSP responded, but was not the detection source



Events Logged By Type

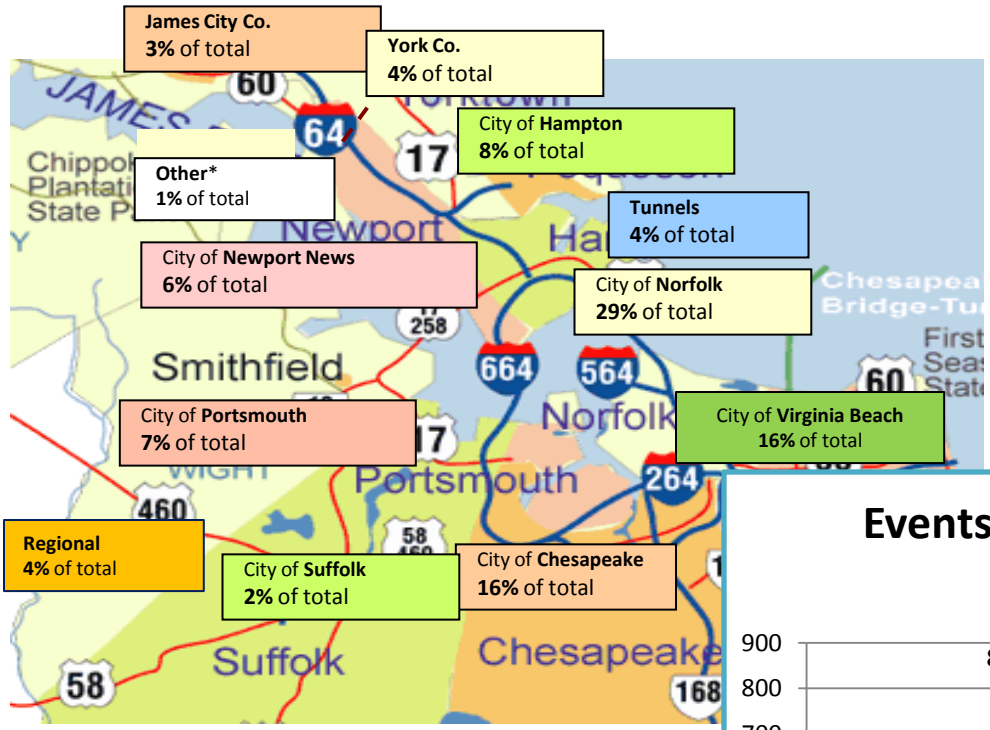


Data Key is located on pages 8-14

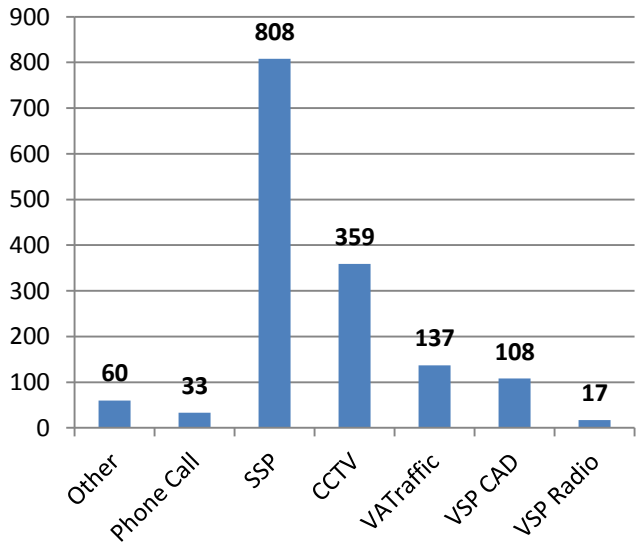
Control Room (continued)

Weekly Total Events by Geographic Location

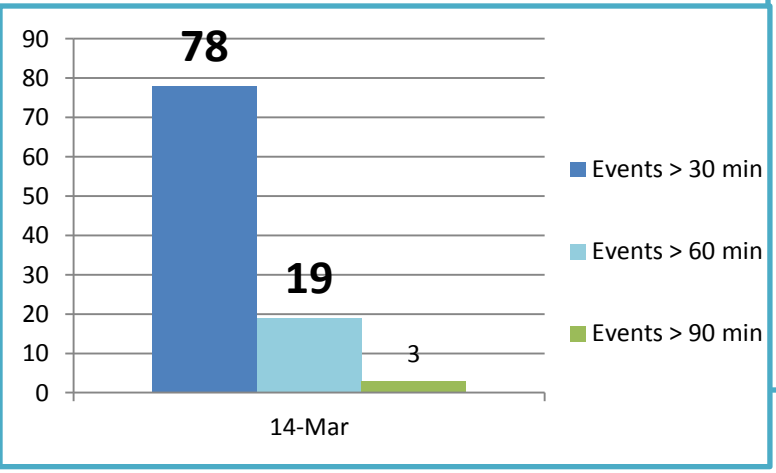
	Norfolk	Chesa-peake	Virginia Beach	Newport News	Hampton	Ports-mouth	Suffolk	York	James City	Tunnels	Other
18-Apr	426	282	229	167	148	121	24	62	32	71	20
25-Apr	356	264	231	133	185	102	26	54	29	78	10
2-May	431	274	210	134	127	63	24	61	32	63	14
9-May	496	276	272	106	142	115	33	69	45	74	14



Events by Detection Source



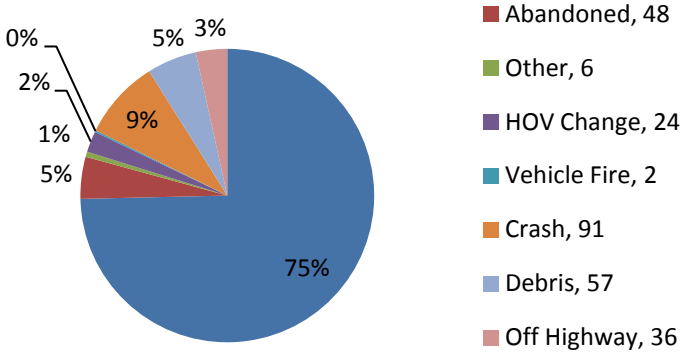
Events Greater Than 30 and 60 Minutes



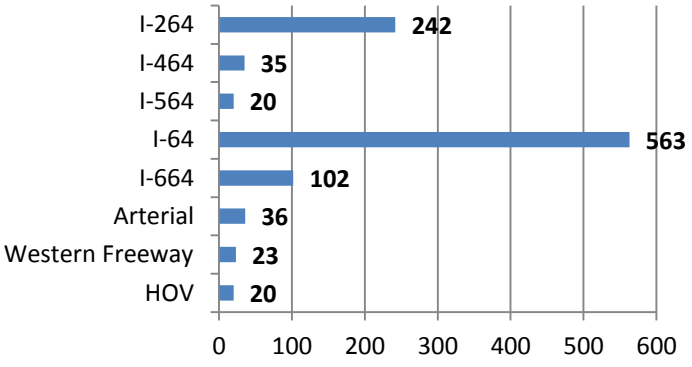
Data Key is located on pages 8-14

Safety Service Patrol

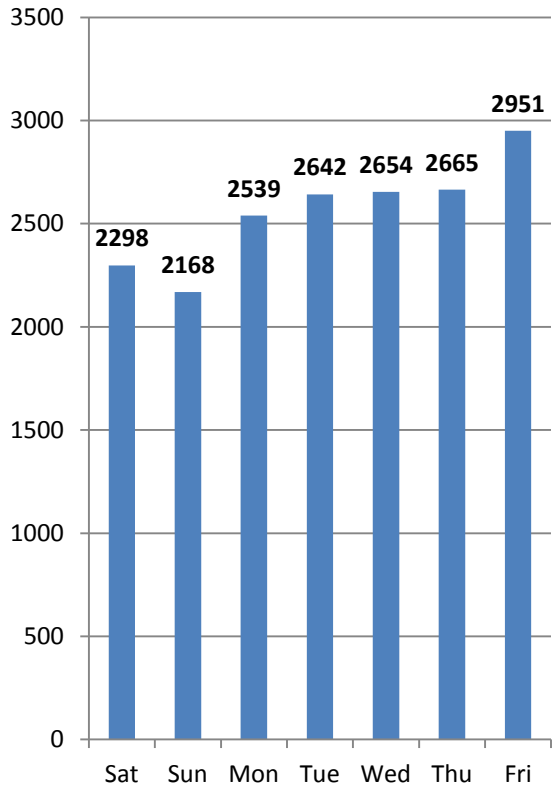
SSP Responses by Event Type



Number of SSP Responses by Roadway



YTD Responses by Day-of-Week



	Most Active	Interstate	Segment ID	# of Incidents
1	Disabled Vehicles	I-64	64-11	58
2	Crashes	I-264	264-17	7
3	Debris Removal	RT 58	Midtown	6
4	Abandoned Vehicles	I-64	64-11	5

Segment ID: Descriptions	
264-17	64 / 264 Interchange - Newtown Rd
Midtown	Inside the Midtown Tunnel
64-11	64 / 264 Interchange - Northampton Blvd
64-11	64 / 264 Interchange - Northampton Blvd

Data Key is located on pages 8-14

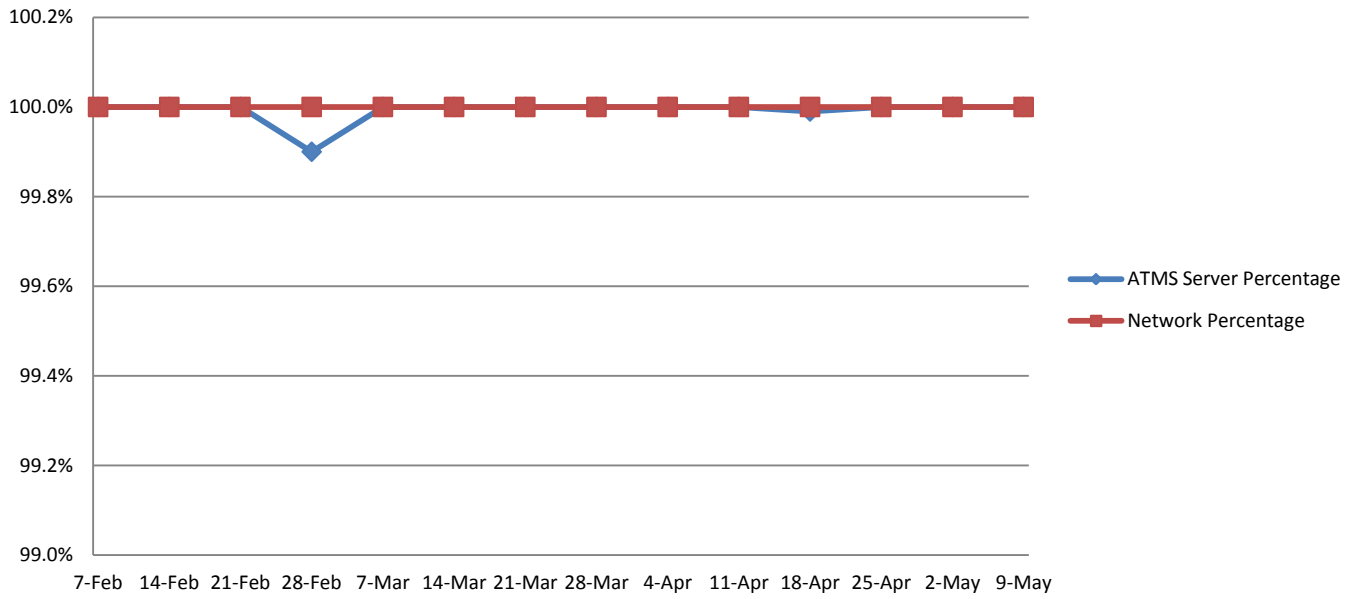
Maintenance & Information Technology

Current Field Device Operational Availability

Component	Total	Not Working	Average Working
CCTV	291	2	283
DMS	202	3	195
HOV Gates	30	0	30
*Other	1658	54	1579

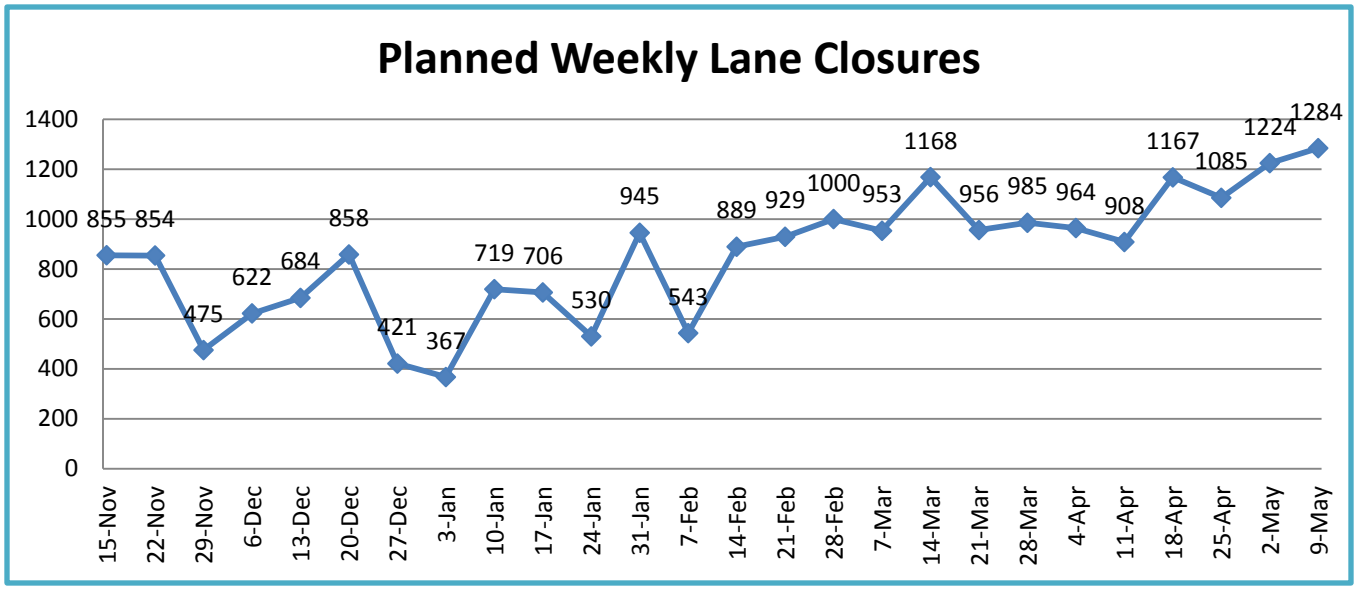
Other = Weather Detectors, Detectors, and HAR

ATMS Server and Network Average Percentage of Availability

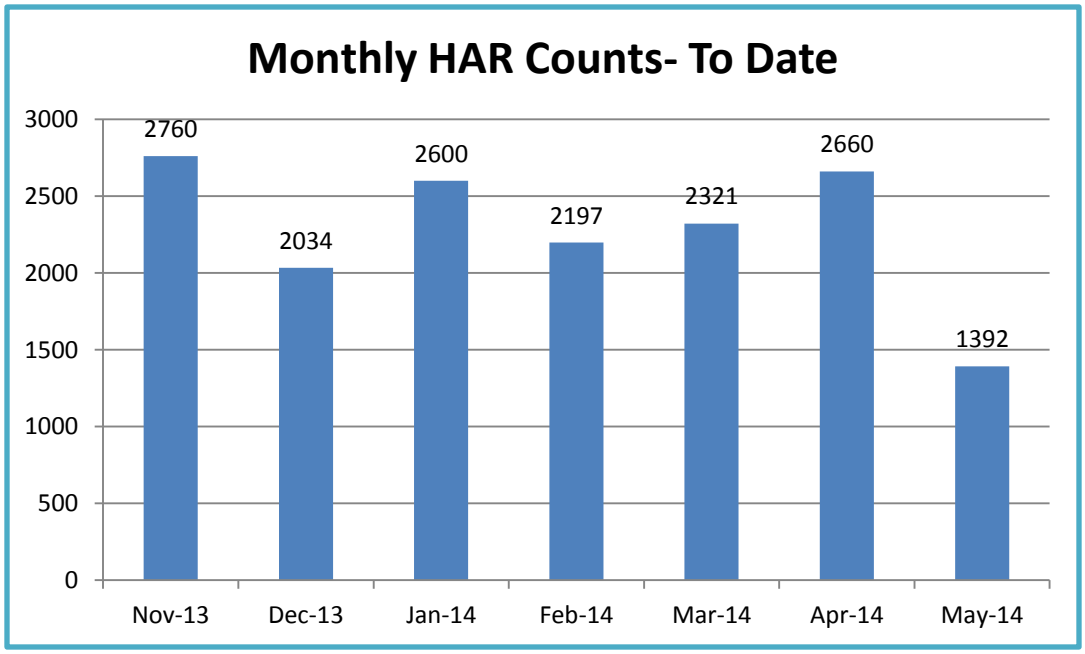


Data Key is located on pages 8-14

Public Information & Media Relations



Visit http://vdot.openlcams.com to view current and scheduled lane closures throughout the state.



There were 761 events with associated HAR messages last week.

Data Key is located on pages 8-14

Data Key

Cover Page

Events Logged to by the Control Room Last Week

Description: Shows the count for the report period and the weekly average for year to date.

Purpose: Provides a snapshot of how many events were entered into the HRTOC Incident Database by Control Room Operators the previous Saturday through Friday. Weeks tallying many events will correlate with an increase in VaTraffic/511 traveler information calls.

Events with Safety Service Patroller Responses Last Week

Description: Shows the count for the report period and the weekly average for year to date.

Purpose: Gives a snapshot view of the quantity of events with SSP responses. Many of the responses reflect direct HRTOC customer contact, an important part of the HRTOC mission.

Field Equipment Corrective and Preventive Work Orders Completed Last Week

Description: The values shown reflect the total number of responses to field equipment corrective maintenance repairs and the total number of preventive maintenance tasks completed during the seven day period.

Purpose: Provides a summary view comparing the amount of corrective maintenance being completed in relation to preventive maintenance. A 2:1 ratio (corrective : preventive) of man hours is considered successful.

Number of Gallons Dispensed During SSP Fuel Assists Last Week

Description: Displays the weekly count of SSP fuel assists and the weekly average for year to date. An estimated one gallon of gas is dispensed per SSP fuel assist.

Purpose: Reflects the most tangible type of assistance provided by the SSPs. Unlike other SSP assistance types (e.g. changing a tire), fuel can be counted as a direct unit cost. Therefore, with gas prices the way they are, this particular type of assistance has a profound effect on the cost of operations.

Lane Closures Entered Last Week

Description: The number of lane closures entered into the LCAMS (Lane Closure Advisory and Management Systems) program for the previous week and for year to date. LCAMS entries are tracked from Sunday through Saturday instead of Saturday though Friday like the other statistics in the report. LCAMS allows users in Hampton Roads to quickly add and modify planned lane closures as well as determine if a lane closure conflicts with any existing entries.

Purpose: Lane closures can impact traffic flow and may effect event counts. High lane closure counts often represent multiple projects ongoing in the area.

Data Key (continued)

Safety Statistics - page 2

HRTOC On-the-Job Injuries (OJIs)

Description: Provides a yearly count of the number of OJIs for HRTOC employees, including all consultant and VDOT HRTOC staff breaking them down by 'negligent' (employee at fault) and 'non-negligent'. OJIs represent an injury that has taken place that required medical attention and/or time away from work.

Purpose: Allows the HRTOC management (consultant and VDOT) to review the current level of safety and implement targeted safety measures should an unacceptable level of total injuries occur or multiple injuries result from the same HRTOC element.

HRTOC Driving Safety Record

Description: Shows the number of HRTOC fleet vehicle accidents that have taken place in the past 6 years, breaking them down by 'negligent' (HRTOC at fault) and 'non-negligent'.

A Safety Committee meets on a monthly basis to review recent accidents and determine fault. This chart is updated after the accident investigation has been completed and fault determinations have been made. The counts include vehicle accidents for all HRTOC SSP vehicles.

Purpose: Reflects the level of accidents that can be directly blamed on negligent behavior and compares current year activity to past years. The Safety & Health Manager can respond to negative trends based on feedback from this chart.

Monthly Ratio of Accidents to Miles Driven

Description: Compares, by month and in a ratio format, the number of accidents sustained by the Safety Service Patrol vehicles in relationship to the cumulative number of miles driven. The ratio equals the number of accidents sustained by the Safety Service Patrol vehicles times 100,000 miles divided by the cumulative number of actual miles driven. The 100,000 multiplier is used because the total number of miles driven is so much higher than the number of accidents.

Purpose: Identifies the rate at which accidents are occurring, involving SSP vehicles, to previous months. Ratios reflecting a high accident rate will have a detrimental effect on the Fleet Maintenance Department's ability to keep vehicles available.

Data Key (continued)

Control Room - page3

VaTraffic Incident Reports by Month

Description: This graph displays the monthly number of VaTraffic incident reports created by the Control Room each month and depicts the current month-to-date activity. Generally, there will be one report for each discovered event, and several 'updates' appended to the original VaTraffic report (not depicted in this chart).

Purpose: Since each report reflects at least one Operator 'action', the graphed values are useful for determining activity levels and subsequently staffing levels based on 'action' levels.

Incident Duration

Description: This graph shows the average duration in minutes from incident detection by a source (CCTV, Phone Call, VaTraffic, VSP CAD, VSP Radio, and Other) to when an SSP truck arrives on scene; the time from SSP arrival until the incident (Abandoned, Accident, Debris, Disabled) is completely cleared; and the total amount of time from initial detection to complete clearance.

Note: Only includes incidents responded to by a SSP where the Response & Clear Times were recorded in the Incident Database.

Purpose: This information is used for extemporaneous audits. Allows management to review incident durations in relationship to pre-determined goals and provide a benchmark for incident response.

** ***Incidents*** *are defined as unplanned situations adversely impacting traffic flow such as accidents, debris, disabled vehicles, and abandoned vehicles.*

** ***Events*** *are defined as 'special events' not affecting traffic, as well as the above defined 'Incidents' .*

Events Logged by Type

Description: This graph enumerates event counts for the past week, and shows the value for each type: Amber and Ozone Alert (i.e. the HRTOC displayed a message on the DMS alerting the public of the current situation), Vehicle Fire, Maintenance Action, Off Highway, Special Event (i.e. concert or college graduation), Roadwork, HOV Change (manual change made to the HOV system from the control center), Other (i.e. police or medical emergency), Choke Point and Bridge Open (HRTOC involved in managing congestion at area bridges and tunnels due to heavy traffic or a bridge opening), Abandoned (abandoned vehicle), Disabled (disabled vehicle), Debris (i.e. ladder, mattress or road kill disrupting the flow of traffic), and Accident.

Purpose: This chart is used to quantify which categories of incidents most severely impact the roadways. Over time and by season comparisons are possible by examination of previous reports.

Number of Incidents Involving Tractor-Trailers

Description: This bar graph shows the number of incidents involving tractor-trailers last week, for the same week last year, and the average for all weeks in the past year.

Purpose: Incidents involving tractor-trailers can take considerably longer to clear and thus have the capability to cause a negative effect on traffic flow and lane clearance. A high number of tractor-trailer incidents can have a negative effect on the number of incidents cleared within the 30 and 60 minute benchmark (page 4).

Data Key (continued)

Control Room – page 4

Weekly Total Events by Geographic Location

Description: This table and accompanying map shows the number of events logged per locale by the Control Room. Rarely, certain events are not included in this tally because they are not defined by municipality.

Purpose: This will aid in determining areas of high demand for SSP services and help to adjust scheduling and routes accordingly.

Events by Detection Source

Description: The bar graph provides a tally of last week's events, broken down by their detection source (VSP Radio and VSP CAD [Virginia State Police radio or computer aided dispatch], VaTraffic, CCTV, SSP, Phone Call and Other [i.e. field contractor or fire department]).

Purpose: Identifies the sources of most our incident discoveries and those sources that need to contribute greater to detection.

Events Greater Than 30, 60, and 90 Minutes

Description: This graph totals those events which lasted more than thirty minutes ,sixty minutes, and ninety minutes in duration. Purpose: This information is used to compare the activity levels of 'serious events' that take longer than the average clearance time. Results can spotlight contributing factors such as short staffing, inter-agency communication, and patrol route inefficiencies.

Data Key (continued)

Safety Service Patrol – page 5

SSP Responses by Event Type

Description: This pie chart shows the relative values of SSP responses by event type last week. Event types include Crash, Debris (i.e. ladders or dead animals in roadway), Disabled (disabled vehicle), Abandoned (abandoned vehicle), Vehicle Fire, HOV Change (i.e. an SSP was involved in an HOV Change) and Other (i.e. traffic control for police activity, medical emergencies).

Purpose: Provides information used for forecasting SSP vehicle equipment, tool, and consumable material (flares, batteries) needs short term and long term, and, to an extent, future staffing requirements.

Number of SSP Responses by Roadway

Description: This graph shows the number of SSP responses for the past week, displayed for each freeway that the HRTOC oversees. Also included are responses on arterial roads and the Western Freeway Rt 164.

Purpose: Used to substantiate the number of SSP responses by freeway assignment. This information can be used to plan future patrol area expansion and definition, as well as staffing levels by roadway.

YTD (Year-to-Date) Responses by Day-of-Week

Description: This chart depicts the number of SSP responses rendered for each day of week, for the current year-to-date.

Purpose: Helps in planning daily staffing levels based on year-to-date activity levels by day.

Most Active Hot-Spots

Description: This table shows, for the four incident categories (Abandoned Vehicles, Crashes, Debris Removed, and Disabled Vehicles), the Segment ID and Interstate of the most active section of roadway, last week's incident count for that section, and the percentage of the total incident type that count represents.

Purpose: Review of these values permit management to detect emerging patterns and plan SSP staffing and routes in relation to those areas requiring the most attention.

Data Key (continued)

Maintenance & information Technology – page 6

Current Field Device Operational Availability

Description: This table shows the total number of units of each equipment type (CCTV, DMS, Gates, and HAR [Highway Advisory Radio transmitters), how many are working and how many are not. The number of working units expressed as a percentage of the total units is also included.

Note: A DMS asset is considered not working if it is illegible. A CCTV asset is considered not working if there is no video or if there is video but the camera can not pan, tilt or zoom (no PTZ).

Detector stations (DET) have been removed from the list while a Detector Replacement Project is underway for the next 8-12 months.

The corresponding graph shows the weekly percentage of System Availability for CCTV and DMS over the past 3 months.

Purpose: This information provides maintenance a clear view of the percentage of working equipment, provides operations a notion of system "eyes and ears" limitations, and provides management information as to current levels of equipment unit functionality.

The graph gives a picture of the System Availability trend for each equipment type.

ATMS Server and Network Average Percentage of Availability

Description: This line graph shows the average percentage of availability for past weeks for the ATMS Server (HR-ATMS-DC1, HR-ATMS-DC2, HR-ATMS-FILE1A, HR-ATMS-FILE1B, HR-ATMS-MEDIA, HR-ATMS-NMS, HR-ATMS-SQL1A, HR-ATMS-SQL1B, HR-ATMS-SQL2A, HR-ATMS-SQL2B) and the ATMS Network (TOC-FW-01,TOC-RTR-01,TOC-RTR-03,TOC-SAN-01,TOC-SWI-03,TOC-SWI-04,TOC-SWI-06,TOC-SWI-07, TOC-SWI-08,TOC-SWI-10,TOC-SWI-11,TOC-SWI-12,TOC-SWI-13,TOC-SWI-14,TOC-SWI-15,TOC-SWI-16)

*ATMS stands for Advanced Traffic Management System and is the hardware and software that the HRTOC uses to manage traffic through control of the Reversible Roadway Gate System, DMS, and CCTV Cameras. It also serves as a database storing most of the 'Control Room' data for this report.

Purpose: These measures reveal server performance, identify capacity/client growth server limitations, and provide support data for planning and future upgrades. The network availability portion of this graph provides a downtime metric, which is a "tell-tale" for network resources at limits, system maintenance problems, or power quality issues.

Data Key (continued)

Public Information / Media Relations – page 7

Weekly Lane Closures Entered into LCAMS

Description: The HRTOC began using LCAMS (Lane Closure Advisory and Management System) on May 1st 2011. LCAMS is a program that allows users in Hampton Roads to quickly add and modify planned lane closures or determine if a lane closure conflicts with any existing entries.

Purpose: This information shows the efforts associated with managing lane closures throughout Hampton Roads. The Lane Closure Technician, Public Information Officer and Control Room operators are all impacted by increasing lane closure counts.

HAR Counts

Description: Highway Advisory Radio (HAR) messages are created and updated several times during the day. This graph tallies the number of events that have a HAR message associated month-to-date, and includes the values for previous months for comparison.

Purpose: The graph shows how the current value compares to past months; the count mirrors event activity on HRTOC monitored roadways. The count is also an indicator for the effort expended in keeping the HAR message up-to-date, in order to maximize the public's usability of the HAR resource.